

THE TYPE SPECIMENS OF SOME OF DE VIS' SPECIES OF FOSSIL MACROPODIDAE

ALAN BARTHOLOMAI

Queensland Museum

During the past decade, interest in the extinct marsupials of Queensland has increased tremendously, and publications by Woods (1958) and Bartholomai (1962, 1963) have clarified the taxonomy, stratigraphic position, and morphology of several of the genera previously discussed by De Vis (1895) as macropodids. Although the present paper does not complete the revisionary work, it has been felt desirable to publish descriptions and figures of the type specimens of the remainder of De Vis' (1895) species of Macropodinae in the collections of the Queensland Museum.

Unfortunately, De Vis' (1895) descriptions are often inadequate and difficult to interpret, his figures are generally poorly executed, and he did not designate holotypes for many of his species. Consequently, every attempt has been made to select name-bearing specimens from the original series which will give stability to the nomenclature, and where possible, clarify the stratigraphic position of the species involved. Such selection is also a necessary step to future revisionary work on Queensland fossil Macropodinae.

The species to be considered were originally referred by De Vis (1895) to the genera *Halmaturus* Illiger and *Macropus* Shaw. The "*Halmaturus*" group included those macropodines in which the permanent premolar was retained throughout life, while in the *Macropus* group the permanent premolar was shed during progression of the tooth row. While it is likely that the name "*Halmaturus*" cannot be applied to any of De Vis' species, it has been considered convenient to retain De Vis' nomenclature in the present paper. It is believed that future studies will confirm that each of De Vis' groups includes more than one genus.

The collections of the Australian Museum, National Museum, Western Australian Museum, South Australian Museum, and Tasmanian Museum and Art Gallery have been checked for missing type material and the assistance of these institutions is gratefully acknowledged.

All photographs are natural size, and all measurements are in millimetres.

"HALMATURUS" DRYAS De Vis

(Plate 15, figures 1-3)

Halmaturus dryas De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 109-111.

LECTOTYPE.—F.3582, partial right maxilla with P^3 - M^3 , adult, ?Chinchilla, S.E.Q., ?Chinchilla Sand, probably Pliocene (figd. in part, De Vis, 1895, pl. 17, figs. 13, 15).

MEASUREMENTS OF LECTOTYPE.— P^3 , 13.2 x 6.6; M^1 , 9.7 x 8.2; M^2 , 12.1 x 9.3; M^3 , 13.8 x 10.1.

DESCRIPTION OF LECTOTYPE.— P^3 elongate, subtriangular in basal outline, broader posteriorly. Crown with high longitudinal crest, slightly concave labially, transected by three sets of vertical ridges, with production of cuspules at crest. Low lingual crest descending anteriorly from moderately high hypocone, becoming nodular mesially with production of three well-defined tubercles, disappearing on lingual base of crown below first cuspule posterior to paracone; crests separated by narrow, shallow, lingual basin. Strong ridge connects hypocone antero-labially to below metacone, while lesser ridge from hypocone unites labially with posterior extension of longitudinal crest, delimiting posterior fossette. Labial base of crown tumescent and nodular.

$M^1 < M^2 < M^3$; molars subrectangular, slightly constricted across median valley; lophs moderately high, anteriorly bowed; metaloph broader than protoloph in M^1 , protoloph broader in M^2 and M^3 . Anterior cingulum relatively low and narrow, moderately short; well-defined, strong fore-link passes posteriorly from near mid-point of anterior cingulum to centre of protoloph; extremely slight ridge descends anteriorly from paracone; posterior ridge from paracone into median valley stronger. Mid-link high, strong, descending postero-labially from protocone then posteriorly across median valley to mid-point of metaloph; slight ridge descends antero-lingually from metacone of M^3 into median valley. Lingual moiety of median valley V-shaped, labial portion sharply U-shaped. Strong postero-labial ridge descends from hypocone across mid-line of crown, meeting postero-lingual ridge from metacone above tooth base, with production of posterior fossette. Posterior surface of metaloph of M^3 mesially with two slight, vertical, accessory ridges.

In the description of "*Halmaturus*" *dryas*, De Vis (1895) stated "type maxillary", but he failed to indicate which individual of the referred maxillary series constituted the holotype. Only four maxillae were originally referred to the species, including the right maxilla partially figured (De Vis, 1895, pl. 17, figs. 13, 15). The basal breadth of P^3 of this specimen was recorded as 7.8, a measurement apparently in error. As this specimen represents the best preserved of the maxillary remains, it has been selected as lectotype. The figured M^3 (De Vis, 1895, pl. 17, fig. 15), was poorly illustrated, but there is little doubt that M^3 of the lectotype is represented.

"HALMATURUS" INDRA De Vis

(Plate 15, figures 4-6)

Halmaturus indra De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 112-113.

HOLOTYPE.—F.3595, partial left mandibular ramus with P_2 - M_1 (unerupted P_3 removed by fenestration and no longer in the Queensland Museum collections), Darling Downs, S.E.Q. (figd. in part, De Vis, 1895, pl. 17, figs. 18, 20).

MEASUREMENTS OF HOLOTYPE.— P_2 , 6.7×4.3 ; DP_3 , 7.1×4.2 ; P_3 , —; M_1 , 8.5×5.6 .

DESCRIPTION OF HOLOTYPE.— P_2 relatively short, robust, subovate in basal outline. Longitudinal crest secant, curving lingually posteriorly, transected mesially by set of vertical ridges with production of cuspule at crest; crown basally with labial and lingual tumescences, continuous around anterior margin, with production of small anterior basal cuspule.

DP_3 molariform, subtriangular in basal outline: lophids moderately low, with hypolophid crest much broader than protolophid; protolophid rectilinear, but hypolophid somewhat convex posteriorly. Trigonid basin narrow, extremely poorly developed labially, short, its length being much less than distance between lophids. Fore-link high, strong, descending anteriorly from protoconid to near mid-point of high anterior cingulum, ornamented labially and lingually by a set of weak accessory ridges; antero-lingual fossette developed in trigonid basin in conjunction with slight anterior ridge from metaconid. Protoconid positioned almost on axis of crown. Posterior ridge from protoconid moderately strong, uniting with moderately strong mid-link descending antero-lingually from hypoconid; posterior ridge from metaconid weak, descending into lingual extremity of rounded talonid basin; labial portion of talonid basin much reduced and at lower level than lingual portion. Anterior ridge from entoconid weak. Posterior of hypolophid rounded, unornamented; basally with slight postero-labial swelling.

M_1 subrectangular in basal outline, very slightly constricted across talonid basin; labial lophid surfaces below protoconid and hypoconid slightly convex in anterior view. Lophids moderately high, with protolophid nearly rectilinear and with hypolophid moderately convex posteriorly; hypolophid broader than protolophid. Trigonid basin relatively broad, and with its length almost equalling distance between lophids. Fore-link rather low, moderately strong, unornamented, descending antero-lingually from protoconid into labial moiety of trigonid basin, not united with relatively low anterior cingulum; weak anterior ridge from metaconid unites with lingual limit of anterior cingulum with production of broad, slightly dished, almost horizontal lingual portion of trigonid basin; labial portion of trigonid basin reduced. Very slight posterior ridge descends from metaconid to unite with equally weak anterior ridge from entoconid across lingual margin of almost horizontal portion of talonid basin. Mid-link from near hypoconid low, moderately strong, crossing talonid basin to base of protolophid, labial to mid-line. Labial portion of talonid basin reduced. Posterior of hypolophid rounded, unornamented; basally with slight postero-labial swelling.

De Vis (1895) referred only one specimen to "*Halmaturus*" *indra*. The specimen re-described as the holotype is the only juvenile mandibular ramus in the Queensland Museum collections which fits the description for the diagnostic P_2 of this species. This tooth also agrees well with the deciduous premolar figured by De Vis (1895, pl. 17, fig. 18), but the structure of the associated M_1 does not agree so well with the corresponding figure of De Vis (1895, pl. 17, fig. 20). It does show, however, a nearly rectilinear protolophid, in spite of De Vis' statement to the contrary.

Unfortunately, P_3 of the holotype, which was excavated and removed by De Vis, has been lost. DP_3 was not described in the original account. The measurement for the series, P_2 – M_1 , recorded by De Vis (1895) as 23.1 mm, is in error; the correct figure is 21.3 mm.

As with many of the specimens described by De Vis (1895), the holotype lacks specific locality information. However the preservation suggests the Chinchilla Sand as the likely provenance.

"HALMATURUS" ODIN De Vis (nomen dubium)

Halmaturus odin De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 111-112.

De Vis (1895) selected an adolescent right ramus with the first four cheek teeth as the holotype of "*Halmaturus*" *odin*. As no description or figure of deciduous dentition was presented at that time, it is apparent that the holotype, although juvenile, contained P_3-M_3 , a conclusion supplemented by the fact that the figured P_3 (De Vis, 1895, pl. 17, fig. 16), shows no indication of wear. An exhaustive search of the collections of the Queensland Museum has revealed that the holotype is missing, and it is presumed to have been lost or destroyed.

There is only one record of a specimen of "*H.*" *odin* having been removed from the collections, and this relates to a young left mandibular ramus with M_4 , which was forwarded to the Australian Museum on 25th November, 1895, at about the time of De Vis' revision. However, this specimen did not appear in the list of referred specimens and could not be confused with the holotype. Exchanges were also made with other Australian Museums at that time and personal checks of the collections of the National Museum and Western Australian Museum were made without success. The collections of the South Australian Museum and the Tasmanian Museum and Art Gallery also failed to yield the missing specimen.

Stirton (1957) attributed a series of measurements to the holotype of "*H.*" *odin*. These measurements refer to F.3589, an adult right mandibular ramus with P_3-M_4 , originally referred to the species by De Vis (1895), but not the holotype.

None of the specimens at present in the Queensland Museum collections, originally referred to "*H.*" *odin*, can be reconciled with the diagnosis, description, or figures of De Vis (1895). In particular, the specimens lack any semblance of accessory processes on the antero-lingual surfaces of the lophids, considered by De Vis to be like those in *Sthenurus* Owen, and diagnostic of the species. Further, the peculiarly complex nature of the crest of P_3 , as shown in his figure, is not duplicated in the referred specimens containing P_3 .

Similarly no other specimen in the Queensland Museum collections can be referred to "*Halmaturus*" *odin* De Vis, and no taxonomic species can be identified. Consequently, the name of the nominal species should be regarded as a *nomen dubium*, a conclusion with which Mr. J. T. Woods, who has also examined the material in question, agrees.

"HALMATURUS" SIVA De Vis

(Plate 16, figures 4-6)

Halmaturus siva De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 113-114.

HOLOTYPE.—F.2926, partial right mandibular ramus with P_3, M_2-M_4 , adult, Darling Downs, S.E.Q.

MEASUREMENTS OF HOLOTYPE.— P_3 , 7.2×2.8 ; M_1 , —; M_2 , 9.2×5.6 ; M_3 , 10.3×6.1 ; M_4 , 10.9×6.3 ; mandible depth and breadth below M_2 – M_3 , 17.4×9.2 .

DESCRIPTION OF HOLOTYPE.—Mandible moderately wide and shallow. Symphysis not ankylosed, elongate, set at a low angle of approximately 5° to base of mandible; geniohyal pit insignificant. Diastema long; ventral margin of ramus sharply rounded posterior to symphysis, becoming more broadly rounded posteriorly; mental foramen moderately large, oval, well anterior to P_3 and slightly below diastemal crest. Broad, rounded depression opening posteriorly into pterygoid fossa. Post-alveolar shelf short.

P_3 elongate, subtriangular in basal outline. Longitudinal crest secant, turning abruptly lingually in its posterior extension; crest transected by two sets of vertical ridges, but resultant cusps along crest obliterated by wear. Well defined lingual ridge descends from posterior cuspid. Labial and anterior base of crown slightly tumid above roots, but only slightly swollen lingually.

$M_2 < M_3 < M_4$; molars subrectangular in basal outline, constricted across the talonid basin; lophids relatively high, moderately convex posteriorly; protolophid broader than hypolophid in M_2 – M_4 . Lateral surfaces of lophids nearly parallel, with labial surfaces only very slightly convex. Trigonid basin moderately broad, its length almost equalling distance between lophids. Fore-link high, strong, descending antero-lingually from protoconid, then anteriorly across trigonid basin to near mid-point of moderately low anterior cingulum. Labial moiety of trigonid basin forming moderately deep antero-labial fossette. Slight accessory ridge descends anteriorly from protolophid, close to fore-link, into trigonid basin in M_2 . Strong, high mid-link descends antero-lingually from hypoconid, then curves antero-labially across talonid basin to unite with short ridge from posterior surface of protolophid close to mid-point. Lingual portion of talonid basin U-shaped, labial portion V-shaped; very slight ridge descends antero-labially from entoconid towards talonid basin. Posterior of hypolophid with feeble median vertical groove.

The holotype of "*Halmaturus*" *siva* (old registration number 11181) was designated in the list of specimens referred to this species by De Vis (1895). It lacks detailed locality data, but its preservation is typical of specimens derived from the Pleistocene fluviatile deposits of the eastern Darling Downs. The figures of the permanent lower premolar and of the third lower molar (De Vis, 1895, pl. 17, figs. 21–22) are rather poorly drawn, but it is considered likely that they represent parts of the holotype.

"*HALMATURUS*" *THOR* De Vis

(Plate 17, figures 1–3)

Halmaturus thor De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 102–104.

LECTOTYPE.—F.3602, partial right mandibular ramus with P_3 exposed from above, M_1 – M_3 , M_4 erupting, juvenile, Ravensthorpe, Pilton, Darling Downs, S.E.Q., from Pleistocene fluviatile deposits (figd. in part, De Vis, 1895, pl. 17, fig. 2).

MEASUREMENTS OF LECTOTYPE.— P_3 , 7.1×3.1 ; M_1 , —; M_2 , $10.4 \times$ —; M_3 , 12.3×7.8 .

DESCRIPTION OF LECTOTYPE.—Mandible strong, with ventral margin of ramus angular posterior to symphysis, becoming rounded posteriorly; labially with well defined groove below P_3 and M_1 ; lingually with broad, shallow depression opening posteriorly into pterygoid fossa; anterior margin of coronoid process inclined at approximately 80° to base of mandible.

P₃ relatively short, subovate in basal outline. Longitudinal crest divided by prominent median vertical grooves; posterior moiety transected by a set of vertical ridges with production of a cuspule at crest. Posteriorly, crest swings slightly lingually. Base of crown slightly tumescent.

M₁ < M₂ < M₃; molars subrectangular, slightly constricted across talonid basin; lophids moderately high, somewhat convex posteriorly; protolophid slightly broader than hypolophid in M₃. Trigonid basin moderately broad, its length almost equalling distance between lophids. Fore-link high, strong, descending from protolophid anteriorly to near mid-point of anterior cingulum; cingulum moderately high. Well defined antero-labial fossette developed in labial moiety of trigonid basin; extremely slight ridges descend anteriorly and posteriorly from metaconid towards trigonid and talonid basins respectively. Mid-link from hypoconid high, strong, crossing talonid basin to near mid-point of protolophid. Lingual moiety of talonid basin with variable accessory link in M₃ and M₄, close to mid-link; very slight antero-labial ridge descends from entoconid, into talonid basin. Posterior surface of hypolophid curved, with shallow, vertical, mesial groove near base; base of M₃ postero-labially with weak cingulum.

In the description of "*Halmaturus*" *thor*, De Vis (1895) failed to designate a holotype, and the lectotype selected is one of the most completely preserved representatives of the referred series.

De Vis (1895) places great importance on the permanent premolar as a means of distinguishing the species, and although the P₃ of the lectotype is somewhat smaller than indicated by De Vis in his text, it agrees with the description and is almost certainly that figured (De Vis, 1895, pl. 17, fig. 1).

The short original description is somewhat anomalous with respect to M₃, in that De Vis states that the posterior surface of the hypolophid is without a groove or posterior cingulum and has weak links, but his illustration shows a distinct posterior groove and relatively strong links and agrees with the structure presented in M₃ of the lectotype.

"*HALMATURUS*" *VINCEUS* De Vis

(Plate 17, figures 4-6)

Halmaturus vinceus De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 100-102.

LECTOTYPE.—F.3577, partial left maxilla with P³-M⁴, adult, Kings Creek, Clifton, Darling Downs, S.E.Q., from Pleistocene fluvial deposits.

MEASUREMENTS OF LECTOTYPE.—P³, 13.4 x 7.6; M¹, 10.1 x 9.0; M², 11.8 x 10.3; M³, 14.4 x 11.1; M⁴, 13.7 x 11.4.

DESCRIPTION OF LECTOTYPE.—P³ subtriangular in basal outline, robust. Longitudinal crest somewhat concave labially, moderately low, transected by three broad, low, vertical labial ridges; corresponding lingual ridges very reduced. Ridge descends lingually from metacone to position of hypocone; posterior ridge from hypocone forming posterior cingulum and postero-lingual basin, but greatly reduced by attrition; anterior ridge from hypocone forming well-defined, but worn, lingual cingulum to below paracone. Lingual basin posteriorly broad, anteriorly narrow. Labial base of crown somewhat tumescent.

$M^1 < M^2 < M^3 = M^4$; molars subrectangular, only very slightly constricted across median valley; lophi moderately low, anteriorly bowed with metaloph broader than protoloph in M^1 and slightly narrower in M^2 – M^4 . Anterior cingulum low, broad, but not as broad as the protoloph, short; very low fore-link passes anteriorly from base of protoloph to anterior cingulum, well labial to axis of crown, accompanied by occasional variable accessory links; slight ridge descends anteriorly from paracone to labial extremity of cingulum, delimiting very slight antero-labial fossette. Strong moderately low mid-link descends postero-labially from protocone then posteriorly to unite with extremely short ridge from near mid-point of metaloph above median valley; low postero-lingual ridge from paracone forming shelf-like area below protoloph crest in unworn teeth; shelf-like area ornamented by low accessory ridges. Labial and lingual moieties of median valley broadly U-shaped. Strong ridge descends postero-labially from hypocone to form postero-labial fossette above base of crown; slight ridge descends postero-lingually from metacone into postero-labial fossette, forming shelf-like area below metaloph crest; shelf-like area ornamented by low accessory ridges in M^3 , but unornamented in M^4 . Lingual base of crown, particularly below protocone, somewhat tumescent in all molars, but less so in M^4 .

No holotype was designated by De Vis (1895) in his description of "*Halmaturus*" *vinceus*, necessitating the selection of a lectotype from the original series of referred specimens. In his text, De Vis states that P^3 is unknown in the maiden state, but figures a permanent upper premolar showing no indication of wear (De Vis, 1895, pl. 16, fig. 12). This specimen could not be located in the collections of the Queensland Museum, and owing to the poor illustrative technique, none of the other specimens figured at that time (De Vis, 1895, pl. 16, figs. 13–15), could be separated from the large series of originally referred remains.

The partial maxilla selected as lectotype was one of the three original maxillary specimens possessing P^3 – M^4 . The length of this full series of cheek teeth is 60.0, corresponding to the lower limit quoted by De Vis (1895) for the three specimens in his possession.

"*HALMATURUS*" *VISHNU* De Vis

(Plate 16, figures 1–3)

Halmaturus vishnu De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 114–116.

LECTOTYPE.—F.3860, partial right mandibular ramus with P_3 – M_4 , adult, Darling Downs, S.E.Q. (figd. in part, De Vis, 1895, pl. 17, figs. 3–4).

MEASUREMENTS OF LECTOTYPE.— P_3 , 10.1 x 4.1; M_1 , 7.8 x —; M_2 , 9.4 x 6.5; M_3 , 10.4 x 7.5; M_4 , 10.7 x 7.3; mandible depth and breadth below M_2 – M_3 , 16.1 x 7.8.

DESCRIPTION OF LECTOTYPE.—Mandible narrow, rather shallow. Symphysis not ankylosed, set at low angle of approximately 5° to base of mandible; geniohyal pit very shallow, below anterior margin of P_3 . Ventral margin of ramus rounded. Mental foramen moderately large, oval, well anterior to P_3 , and just below diastemal crest. Ramus with shallow labial groove from below P_3 to below centre of M_3 . Lingually, broad depression leads posteriorly to pterygoid fossa. Post-alveolar shelf short, leading to mesial wall of coronoid process.

P_3 elongate, suboval in basal outline. Longitudinal crest secant, transected by three major and one minor set of vertical ridges with production of cusps at crest; base of crown markedly tumescent, produced to form noticeable cingulum anteriorly.

$M_1 < M_2 < M_3 = M_4$; molars subrectangular, slightly constricted across the talonid basin; lophids relatively low, almost rectilinear, with hypolophid somewhat more convex posteriorly; protolophid almost as broad as hypolophid in M_2 , but much broader in M_3 and particularly so in M_4 . Lateral surfaces of lophids markedly convex. Trigonid basin broad, its length almost equalling distance between lophids; fore-link low, moderately strong, unornamented, descending antero-lingually from protoconid, across labial moiety of trigonid basin to unite at antero-labial margin with relatively low anterior cingulum; very weak accessory ridge descends anteriorly from metaconid towards trigonid basin; lingual portion of trigonid basin near horizontal, labial portion reduced and sloping. Slight ridge descends posteriorly from metaconid towards talonid basin. Mid-link from hypoconid low, crossing labial moiety of talonid basin to base of protolophid. Posterior of hypolophid unornamented. Basally with slight posterior cingulum.

De Vis (1895) did not designate a holotype from the sixteen specimens which he originally referred to "*Halmaturus*" *vishnu*. The specimen figured in part by De Vis (1895, pl. 17, figs. 3-4) is the most complete and best preserved specimen of this series and is selected as lectotype. Unfortunately the specimen lacks detailed locality information, but its preservation suggests that it has been derived from the Pleistocene fluviatile deposits of the eastern Darling Downs.

Stirton (1957, p. 124) attributed a series of measurements to the type of "*Halmaturus*" *vishnu*. These refer to the lectotype.

MACROPUS FAUNUS De Vis

(Plate 18, figures 1-3)

Macropus faunus De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 127-129.

HOLOTYPE.—F.2924, partial right maxilla with P^3 - M^3 , juvenile, Darling Downs, S.E.Q. (figd. in part, De Vis, 1895, pl. 18, figs. 4-5).

MEASUREMENTS OF HOLOTYPE.— P^3 , 11.6×5.9 ; M^1 , 13.4×10.7 ; M^2 , 16.0×12.4 ; M^3 , 17.1×13.2 .

DESCRIPTION OF HOLOTYPE.— P^3 moderately elongate, subtriangular in basal outline, broader posteriorly. High longitudinal crest markedly trifold, being cleft by two, deep, vertical sets of grooves. Moderately high hypocone near metacone, connected by strong ridge; posterior ridge from hypocone curving postero-labially above base of crown to unite with slight posterior extension of longitudinal crest from metacone.

$M^1 < M^2 < M^3$; molars subrectangular, slightly constricted across median valley; lophs relatively high, anteriorly bowed; metaloph broader than protoloph in M^1 , approximately equal in M^2 and somewhat narrower in M^3 . Anterior cingulum relatively high, broad, and moderately short; well-defined, strong fore-link passes posteriorly from near mid-point of anterior cingulum to point lingual to centre of protoloph. Mid-link high, strong, descending labially from protocone, then posteriorly across median valley to unite with short ridge from mid-point of metaloph; median valley V-shaped, delimited lingually by low accessory link in M^3 ; slight antero-lingual ridge from metacone descends into median valley. Strong postero-labial ridge descends from hypocone to near postero-labial margin of crown, uniting with extremely slight, posterior ridge from metacone, with production of posterior fossette; posterior surface of ridge from hypocone with two vertical grooves.

The specimen designated by De Vis (1895) as the holotype of *Macropus faunus* lacks detailed locality information, but its preservation indicates that it was most probably derived from the Pleistocene fluvial deposits of the eastern Darling Downs. Since De Vis possessed only one maxillary specimen of *M. faunus*, the holotype, the figured permanent upper premolar and M³ (De Vis, 1895, pl. 18, figs. 4–5) must relate to this specimen, although M³ has been poorly illustrated.

MACROPUS MAGISTER De Vis

(Plate 19, figures 1–3)

Macropus magister De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 120–124.

LECTOTYPE.—F.645, partial cranium containing P²–M², P³ exposed by fenestration, juvenile, Ravensthorpe, Pilton, S.E.Q., from Pleistocene fluvial deposits (figd. in part, De Vis, 1895, pl. 18, figs. 13, 14).

MEASUREMENTS OF LECTOTYPE.—P², 9.3 x 6.7; DP³, 11.0 x 8.8; P³, 10.4 x 5.9; M¹, 13.5 x 9.8; M², 14.0 x 10.5.

DESCRIPTION OF LECTOTYPE.—Maxilla laterally with infraorbital foramen opening above anterior margin of P²; anteorbital canal short; inferior process of anterior zygoma root moderately strong; palate entire, with palatine well developed, extending anteriorly to posterior root of M¹; jugal laterally excavated; zygomatic arch markedly sinuous, converging anteriorly, squamosal in narrow anterior contact with frontal, subsquamosal foramen antero-dorsal to external auditory meatus, with prominent foramen within meatus opening anteriorly into sinus of root of zygoma; postglenoid process of squamosal moderately well developed. Tympanic deep, complete dorsally, poorly united with squamosal in roof of meatus. Alisphenoid not inflated, in slight contact with basioccipital, with foramen ovale bounded antero-laterally by deep groove. Paraoccipital process elongate.

P² somewhat reduced, subrectangular in basal outline, broader posteriorly; crown with high, bifid longitudinal crest, being divided mesially by a deep, vertical labial groove. Tooth much worn lingually. Small basal style present, labial to metacone.

DP³ molariform, not constricted across median valley; lophs moderately low, anteriorly bowed, with metaloph broader than protoloph. Anterior cingulum relatively high and broad, moderately short; well-defined strong fore-link passes postero-lingually from near mid-point of anterior cingulum to protoloph; slight ridge descends anteriorly from paracone; small fossette formed antero-lingually. Very slight ridge descends postero-lingually from paracone into median valley, accompanied by broad, very low ridge from surface of protoloph; strong, moderately high mid-link descends across median valley to near mid-point of metaloph; low ridge paralleling loph in lingual moiety of median valley. Low ridge descends lingually from hypoconid to base of crown and stronger ridge descends postero-labially.

P³ moderately short, robust, subtriangular in basal outline, broader posteriorly; crown with high bifid longitudinal crest, being cleft at approximately one third distance along crest from paracone; posterior portion subdivided by extremely weak vertical set of grooves. Hypocone almost as high as metacone, with slight anterior ridge to tooth base, slight postero-labial ridge to unite with extension of longitudinal crest above tooth base, and labial ridge to below metacone. Slight indication of basal style present, labial to metacone.

$M^1 < M^2$; molars subrectangular in basal outline, only extremely slightly constricted across median valley; lophs moderately low, anteriorly bowed, with metaloph broader than protoloph in M^1 . Anterior cingulum relatively high and broad, moderately short; well-defined, strong fore-link passes postero-lingually from near mid-point of anterior cingulum to protoloph; accessory link present in labial moiety of anterior cingulum of M^1 . Moderate ridge descends anteriorly from paracone but posterior ridge reduced; slight antero-lingual fossette in M^2 . Base of protoloph broadly swollen labially near mid-link. Mid-link strong, moderately high, descending postero-labially from protoloph then posteriorly to unite with ridge from near mid-point of metaloph above median valley; mid-link ornamented labially by accessory ridge to protoloph. Slight ridges descend anteriorly and posteriorly from metacone; strong ridge descends postero-labially from hypocone to postero-labial margin of crown with production of posterior fossette.

De Vis (1895) did not designate a holotype for *Macropus magister*, but mentioned in his discussion relating to *M. pan*, that the type was maxillary. The lectotype, selected from the large series of specimens originally referred to *M. magister*, contains the most complete, and best preserved juvenile maxillary dentition. While De Vis' figures are poor it is considered likely that P^2 and P^3 of this specimen were illustrated by him (1895, pl. 18, figs. 13-14), and the dimensions given for the permanent premolar support this.

MACROPUS PAN De Vis

(Plate 18, figures 4-6)

Macropus pan De Vis, 1895, Proc. Linn. Soc. N.S.W., 10 (n.s.), pp. 124-127.

HOLOTYPE.—F.2925, partial right maxilla with DP^3 - M^2 , juvenile, Darling Downs, S.E.Q.

MEASUREMENTS OF HOLOTYPE.— DP^3 , 10.6 x 8.1; P^3 , —; M^1 , 13.7 x —; M^2 , 16.3 x 12.6.

DESCRIPTION OF HOLOTYPE.— DP^3 molariform, but too worn to be adequately described. Semblance of accessory link present in labial moiety of median valley.

$M^1 < M^2$; molars subovate in basal outline, not constricted across median valley; lophs high, anteriorly bowed; protoloph broader than metaloph in M^2 . Anterior cingulum relatively high, narrow, moderately short; poorly defined, weak fore-link passes anteriorly from point lingual to mid-point of protoloph to anterior cingulum; lingual moiety of anterior cingulum descending markedly; slight ridges descend anteriorly and posteriorly from paracone. Mid-link high, strong, descending postero-labially then posteriorly from protocone, to unite with ridge from near mid-point of metaloph above median valley; valley sharply V-shaped; anterior ridge from metacone weak, descending into median valley to accessory link across labial moiety of valley; accessory link unites with weak posterior ridge from paracone; posterior surface of protoloph between paracone ridge and mid-link broadly swollen. Well defined ridge descends postero-labially from hypocone to unite with weak ridge from metacone above base of crown, labial to mid-line, with production of posterior fossette. Posterior surface of coarse hypocone ridge moderately deeply grooved in M^2 .

De Vis (1895) designated a juvenile maxilla as the holotype of *Macropus pan*. He did not figure this specimen, but only one such juvenile maxilla is included in the originally referred material, this containing DP³-M² and measuring 40.0.

Detailed locality information is lacking for the holotype, but its preservation indicates that it has most likely been derived from the Chinchilla Sand.

SUMMARY

The holotypes of De Vis' (1895) macropodid species, "*Halmaturus*" *indra*, "*H.*" *siva*, *Macropus faunus*, and *M. pan*, together with the lectotypes selected for "*H.*" *dryas*, "*H.*" *thor*, "*H.*" *vinceus*, "*H.*" *vishnu*, and *M. magister* are described and figured.

It is concluded that "*H.*" *odin* De Vis represents a *nomen dubium*.

LITERATURE CITED

- Bartholomai, A., 1962. A New Species of *Thylacoleo* and Notes on Some Caudal Vertebrae of *Palorchestes azael*. *Mem. Qd Mus.*, 14, pp. 33-40.
- , 1963. Revision of the Extinct Macropodid Genus *Sthenurus* Owen in Queensland. *Mem. Qd Mus.*, 14, pp. 51-76.
- Stirton, R. A., 1957. Tertiary Marsupials from Victoria, Australia. *Mem. Nat. Mus. Vic.*, 21, pp. 121-134.
- De Vis, C. W., 1895. A Review of the Fossil Jaws of the Macropodidae in the Queensland Museum. *Proc. Linn. Soc. N.S.W.*, 10 (n.s.), pp. 75-133.
- Woods, J. T., 1958. The Extinct Marsupial Genus *Palorchestes* Owen. *Mem. Qd Mus.*, 13, pp. 177-193.

EXPLANATION OF PLATES

Plate XV

"*Halmaturus*" *dryas* De Vis, F.3582, lectotype.

Figs. 1, 2. Stereopair of occlusal view.

Fig. 3. Labial view.

"*Halmaturus*" *indra* De Vis, F.3595, holotype.

Figs. 4, 5. Stereopair of occlusal view.

Fig. 3. Labial view.

Plate XVI

"*Halmaturus*" *vishnu* De Vis, F.3860, lectotype.

Figs. 1, 2. Stereopair of occlusal view.

Fig. 3. Labial view.

"*Halmaturus*" *siva* De Vis, F.2926, holotype.

Figs. 4, 5. Stereopair of occlusal view.

Fig. 6. Labial view.

Plate XVII

"*Halmaturus*" *thor* De Vis, F.3602, lectotype.

Figs. 1, 2. Stereopair of occlusal view.

Fig. 3. Labial view.

"*Halmaturus*" *vinceus* De Vis, F.3577, lectotype.

Fig. 4. Labial view.

Figs. 5, 6. Stereopair of occlusal view.

Plate XVIII

Macropus faunus De Vis, F.2924, holotype.

Figs. 1, 2. Stereopair of occlusal view.

Fig. 3. Labial view.

Macropus pan De Vis, F.2925, holotype.

Fig. 4. Labial view.

Figs. 5, 6. Stereopair of occlusal view.

Plate XIX

Macropus magister De Vis, F.645, lectotype.

Figs. 1, 2. Stereopair of occlusal view.

Fig. 3. Labial view.